

Manufacturing USA[®]

Pandemic Response and NIIMBL Update

Visiting Committee on Advanced Technology

June 9, 2020

Mike Molnar

NIST Office of Advanced Manufacturing

Kelvin Lee

National Institute for Innovation
in Manufacturing Biopharmaceuticals

Delivering on Manufacturing USA Purposes



Competitiveness



Leadership



Scale
Technology



Shared
Resources



Workforce
Development



Knowledge
Transfer



Partnership



Manufacturing
Employment



Innovation
Ecosystems

Current Institutes

Electronics

AIM
photonics

**Integrated
Photonics**
Albany, NY
Rochester, NY

NEXT FLEX

**Flexible
Hybrid
Electronics**
San Jose, CA

POWER AMERICA

**Wide Bandgap
Semiconductors**
Raleigh, NC

Materials

affoa

**Advanced Fibers
and Textiles**
Cambridge, MA

iacmi
INSTITUTE FOR
ADVANCED COMPOSITE
MANUFACTURING

**Advanced
Composites**
Knoxville, TN

lift

**Lightweight
Materials**
Detroit, MI

Bio Manufacturing

NIMBL

**Bio-
pharmaceutical
Manufacturing**
Newark, DE

biofabusa

**Regenerative
Manufacturing**
Manchester, NH

**New – 2021
Bioindustrial
Mfg. Institute**

Energy / Environment

RAPID
Transforming Process Industries

**Modular
Chemical Process
Intensification**
New York, NY

**REMADE
INSTITUTE**

**Sustainable
Manufacturing**
Rochester, NY

**CLEAN ENERGY
SMART
MANUFACTURING**

**Smart
Manufacturing**
Los Angeles, CA

Digital / Automation

America Makes

**Additive
Manufacturing**
Youngstown, OH

ARM
ADVANCED ROBOTICS
FOR MANUFACTURING

**Advanced
Robotics**
Pittsburgh, PA

M D

**Digital
Manufacturing**
Chicago, IL

**NEW:
CYMANII**
the cybersecurity
manufacturing
innovation institute

Cybersecurity
San Antonio, TX

Manufacturing USA INSTITUTES IMPACT PARTICIPATE ABOUT COVID-19 SEARCH

The 14 national institutes and their federal sponsoring agencies are actively engaged in ways to support U.S. manufacturers and their respective advanced manufacturing industries through the current crisis.

Learn more about the Manufacturing USA National Emergency Assistance Program (NEAP) Funding Opportunity and Funding Opportunity (NOFO) FAQ

News

- AFPOA helping with efforts to test effectiveness of some N95 masks
- LIFT Providing STEM kits to Detroit Students During School Closures
- Two Challenges from America Makes to Mobilize Additive...
- Small Business Owner's Guide To CARES Act

COVID-19 webpage curates institutes' efforts

RESPONSE

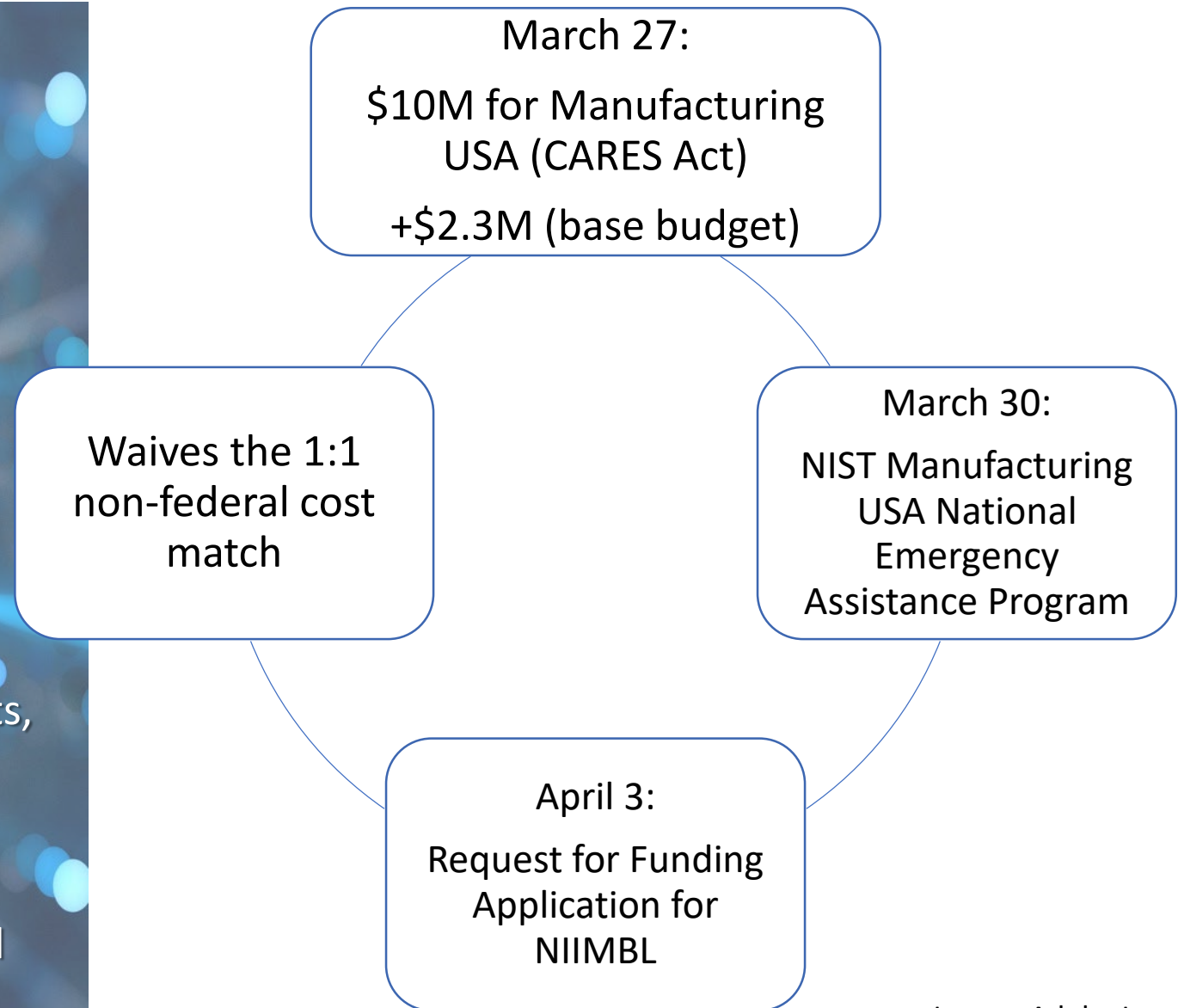
NIST Manufacturing USA
National Emergency Assistance
Program

NIXMBL

NIST Request for Application

First Awards from 2020 CARES Act + base

- Strategy: Augment CARES Act funding with all available funding from base office budget.
- Use \$12.3M total amount to fund best projects, selected on merit
- Make additional awards immediately to prioritized “hopper” of proposals should additional emergency funding be appropriated



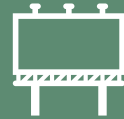
Manufacturing USA National Emergency Assistance Program (NEAP)



Used new public service
grant authorities to fund
non-NIST institutes



Requested high-impact
projects to respond to
COVID-19 pandemic



Proposals reviewed on a
rolling basis



\$92.4 M
projects proposed



26 eligible proposals
from 10 institutes (6/2)



\$3.4M in Awards being
processed



\$3.4M NIST Awards in process for first round NEAP



Technology
roadmap for
pandemic
response and
recovery

\$400,000

BioFabUSA



Automated
COVID-19
Testing

Institute TBA



Virtual
Workforce
development
& training

Institute TBA



Biomedical
equipment
and supplies –
development
&
manufacturing

Institute TBA

Request for Funding Application to NIIMBL



- **March 30:** CARES Act passed
- **April 4:** Request for Application issued
- **April 5:** NIIMBL issued project call
- **April 7:** Over **200 technical proposals** submitted to NIIMBL
- **April 21:** NIIMBL submitted proposal
- **April 22:** **48 hour** reviewer turnaround
- **May 22:** Award approved

\$8,982,496 NIST Award for NIIMBL Projects



Provide virus proteins to improve blood testing capabilities



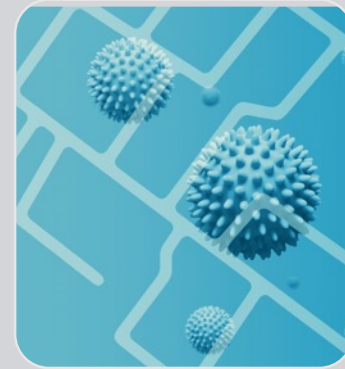
Assist regional hospital systems with validation of rapid in-house diagnostic testing capabilities



Identify alternative domestic supply chains to reduce foreign dependence for respirators and masks



Validate the use of environmental decontamination approaches for clinical spaces



Develop automated contact tracing technology w/i facilities to limit the spread of coronavirus in essential workers



Accelerate development of more flexible manufacturing platforms of biologic therapies and rapid release testing